

REMARKS

In the referenced Advisory Action, the Examiner indicates that there are areas where his interpretation of the reference is different than the Applicants herein.

The Examiner states that Allen teaches that it is desirable to promote lower off-angle color (Column 23, lines 1-2). "...This type of construction is desirable in that it promotes lower off-angle color." Promoting lower off-angle color is not the same as evening out the color temperature. All the statement quoted means is that the film tends to introduce less color to the off-angle direction. If the light source is not even (for this example it is reddish on-axis and bluish off-axis), then if the film promotes low off-angle color, or to the extreme, no off-angle color, then what results is a backlight with reddish light on-axis and bluish light off axis and therefore a larger average weight-balanced color temperature variation. Promoting lower off-angle color cannot and does not even out the color temperature versus angle of the backlight.

Secondly, the statement being quoted by the Examiner is being interpreted in a vacuum instead of the context of the surrounding specification. The section that the Examiner quotes is a section about multi-layer combinations (title of the section is on Column 22, line 40). This section describes multilayered films like those described in WO95/17303 (Ouderkirk et al.). Figure 1a in the Ouderkirk application shows the multilayered structure that Allen refers to in his patent comprising alternating layers of two polymers. These layers serve to reflect one polarization state of light and transmit the other. This invention has the problem of introducing color off angle into the light transmitted through the sample. This is shown in Ouderkirk Page 26, lines 1-5:

"In most applications, the ideal reflecting polarizer has high reflectance along one axis and zero reflectance along the other, at all angles of incidence. If some reflectivity occurs along the transmission axis, and if it is different for various wavelengths, the efficiency of the polarizer is reduced, and color is introduced into the transmitted light. Both effects are undesirable."

And in Page 26 line 17 through page 27 line 2:

“If the film stack were designed to provide the same reflectivity for all visible wavelengths, a uniform, neutral gray reflection would result. However, this would require almost perfect thickness control. Instead, off-axis reflectivity, and off-axis color can be minimized by introducing an index mismatch to the non-stretch in-plane indices (n_{ly} and n_{2y}) that create a Brewster condition off axis, while keeping the s polarization reflectivity to a minimum.”

These sections and other sections in Ourderkirk show that while the Ourderkirk film does polarize light, creating off-angle coloration is a problem for the film. What Allen has done is take the Ouderkirk film and place a discontinuous phase in one of the layers (PEN in this case). This is shown in Figure 5 of Allen and described in Column 22, lines 63-Column 23 line 1.

“Fig. 5 illustrates one example of this embodiment of the present invention. There, the optical body consists of a multilayer film 20 in which the layers alternate between layers of PEN 22 and layers of co-PEN 24. Each PEN layer includes a disperse phase of syndiotactic polystyrene (sPS) within a matrix of PEN.”

The addition of the sPS to the PEN layer that Allen teaches promotes less off-angle color compared to the multilayered film with no disperse phase (Ouderkirk et al.) and cannot be read out of context of the specification.

The Examiner states that Allen also teaches that the films exhibit a flat transmission curve as a function of the wavelength of light, which tends to minimize any changes (variation) in color to a resultant display device (column 5, lines 30-34). Applicants respectfully disagree with this conclusion.

Allen states that the optical film does not change the color of the light exiting the optical film compared to the light entering the film. Column 5 lines 28-34 states that the optical films with a continuous phase and discontinuous phase have an anti-reflection layer that

“exhibit a flat transmission curve as a function of the wavelength of light, which tend to minimize any changes in color

to a resultant display device into which the reflective polarizer is incorporated.”

Therefore, the color of the light entering into the Allen film equals the color of the light exiting the film. This does not relate to an angle dependency of exiting light color. Furthermore, Allen discusses the examples 131 through 133 (perpendicular transmission spectra presented in figure 7) in column 47 lines 49-59 stating:

one skilled in the art will appreciate that a film exhibiting a flat transmission curve as a function of the wavelength of light will minimize any changes in color to a resultant display device into which the reflective polarizer might be incorporated.”

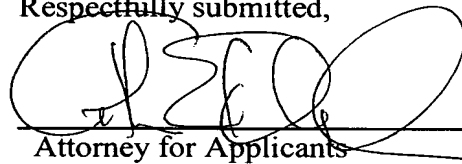
A film that has a flat transmission curve as a function of wavelength (color) cannot even out the color temperature of a backlight versus angle. In the phone interview dated June 14, 2005, Applicants discussed how a backlight with a reddish coloration normal to the film and a bluish coloration off axis had light exiting at all angles of a purplish coloration when the light from the backlight passed through the film of the invention. The film of the invention mixes the light at all angles and what exits the film has a similar coloration over all angles and thus a very low average weight-balanced color temperature variation. As was discussed in the interview, there is no possible way to mix blue and red light and get red light out; the result of the mixing is always between the two colors (another example being black paint and white paint when mixed is always a shade of gray). Allen specifically states that his films have a flat transmission over all wavelengths, meaning that red in equals red out and therefore no mixing is being accomplished and the film will not significantly change the average weight balanced color temperature variation of the backlight.

To summarize, there is no suggestion that one can select void parameters in order to even out the angle dependent color temperature of the film. At best Allen provides a generic statement that voids can be adjusted to get desired diffusion properties. There is no suggestion that average weight-balanced color temperature variation can be reduced nor that the identified void parameters

can be selected to accomplish that result. Applicants provide evidence in the examples that this is possible through control of the specified parameters and that parameters outside the limitations give highly divergent color temperatures vs. angle of view.

In view of the foregoing remarks, it is respectfully requested that the rejections and reasons given in the Advisory action be reconsidered and that a Notice of Allowance be issued in this application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'A. Kluegel', is written over a horizontal line.

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If the Examiner is unable to reach the Applicant(s) Attorney at the telephone number provided, the Examiner is requested to communicate with Eastman Kodak Company Patent Operations at (585) 477-4656.